IN THE SPECIFICATION

Please replace paragraph [0003] beginning at page 1 with the following rewritten paragraph:

[0003]

This kind of particulate filter is a porous honeycomb structure made of ceramics such as cordierite and having lattice-like compartmentalized passages; alternate ones of the passages ~~have~~ having plugged inlets and the remaining passages ~~with~~ having unplugged open inlets which are plugged at their outlets. Thus, only the exhaust gas passing through the compartment walls is discharged downstream.

Please replace paragraph [0004] at page 2 with the following rewritten paragraph:

[0004]

The particulates in the exhaust gas, which are captured by and accumulated on the compartment walls of the particulate filter, ~~require~~ are required to be burned off to regenerate the particulate filter before exhaust resistance considerably increases due to clogging. However, the exhaust from the diesel engine in a normal operating status rarely has a chance to reach a temperature level at which the particulates ignite by themselves. Then, to employ a catalytic regenerative particulate filter has been investigated which integrally carries oxidation catalyst made from platinum-carrying alumina or in which separate oxidation catalyst is arranged upstream of the particulate filter.

Please replace paragraph [0007] at page 3 with the following rewritten paragraph:

[0007]

However, whenever any of these post-processing devices is employed, an exhaust temperature above a predetermined level is required for assured burning-off of particulates

and for obtaining enough catalytic activities. Thus, if an operating status with lower exhaust temperature (generally speaking, a region with lower exhaust temperature extends in a light-load operating region) continues, the post-processing device cannot work well[[;]] and in a case of, for example, a city shuttle-bus which tends to travel on congested roads, operation ~~with~~ above a predetermined temperature requirement does not continue for a long time, resulting in the possibility of insufficiently obtaining the exhaust emission control effect due to provision of a post-processing device.

Please replace paragraph [0008] beginning at page 3 with the following rewritten paragraph:

[0008]

To overcome this problem, there has been investigated ~~to arrange~~ arranging a plasma generator upstream of the post-processing device so as to obtain enough exhaust emission control effect due to the post-processing device even in an operating region with lower exhaust temperature. To discharge electricity by such plasma generator in the exhaust gas upstream of the post-processing device to generate plasma excites the exhaust gas and changes unburned hydrocarbon, oxygen and NO into an activated radical, ozone and NO_2, respectively. Because of these exhaust gas excited components being active, exhaust emission control effect due to the post-processing device can be obtained even in a region with exhaust temperature lower than ever before.

Please replace paragraph [0010] at page 4 with the following rewritten paragraph:

[0010]

However, electrodes of such plasma generator are exposed to exhaust gas flow having the particulates entrained thereon, so that carbonic soot and SOF may be attached to and

accumulated on the electrodes to cause leakage of current, resulting in difficulty [[of]] in applying voltage across the electrodes and in hindrance of the generation of plasma.

Please replace paragraph [0011] at page 5 with the following rewritten paragraph:

[0011]

The present invention was made in view of the above and ~~hast~~ has as its object to provide an exhaust emission control device which can properly burn off soot and a soluble organic fraction attached to and accumulated on electrodes of a plasma generator.

Please replace paragraph [0015] beginning at page 6 with the following rewritten paragraph:

[0015]

When the soot and SOF in the exhaust gas attached to and accumulated on the electrodes of the plasma generator are to be removed, fuel is added upstream of the oxidation catalyst by fuel adding means. This added fuel makes oxidation reaction through oxidation catalyst to generate reaction heat which substantially increases the temperature of the exhaust gas passing through the oxidation catalyst[[; as]]. As a result, the exhaust gas increased in temperature through the oxidation catalyst is introduced into the plasma generator, leading to burn-off of the soot and SOF attached to and accumulated on the electrodes of the plasma generator.

Please replace paragraph [0016] at page 7 with the following rewritten paragraph:

[0016]

If operation is being conducted in an operating region with too low an exhaust temperature to oxidize the fuel on the oxidation catalyst, the exhaust temperature may be

properly increased by the temperature increasing means before fuel is added by the fuel adding means.

Please replace paragraph [0017] at page 7 with the following rewritten paragraph:

[0017]

On ~~an occasion of~~ practicing the exhaust emission control device of the invention more concretely, preferably a temperature sensor for detecting the exhaust temperature is arranged between the oxidation catalyst and the plasma generator, fuel being added properly by the fuel adding means only on a condition that a detected value of the temperature sensor exceeds a predetermined threshold. When the detected value of the temperature sensor is below the threshold, [[to]] an increase in the temperature of the exhaust gas may be properly conducted by the temperature increasing means before the fuel addition by the fuel adding means.

Please replace paragraph [0019] at page 8 with the following rewritten paragraph:

[0019]

The temperature increasing means may be suction throttling means for properly throttling the suction flow rate. Alternatively, it may be fuel injection control means which may cause the fuel injection unit to ~~conduct~~ control the main injection with a timing delayed within a combustible range to a normal injection or which may cause the fuel injection unit to conduct post-injection with a combustible timing just after the main injection.

Please replace paragraph [0021] beginning at page 8 with the following rewritten paragraph:

[0021]

When the temperature increasing means is the fuel injection control means and the fuel injection unit is caused to conduct the main injection with the timing delayed within the combustible range to the normal injection, fuel of the delayed main injection is burned with timing hardly convertible into output to lower the heat efficiency in the internal combustion engine and increase [[a]] the heat quantity not used as motive energy ~~among a~~ in the heat release value of the fuel, thereby increasing the exhaust temperature.

Please replace paragraph [0024] at page 10 with the following rewritten paragraph:

[0024]

When the catalyst regenerative particulate filter is incorporated as a post-processing device in the exhaust pipe, it is preferable that a NO_x reduction catalyst for reductive purification of NO_x in the exhaust gas is provided downstream of the particulate filter and that a plasma generator for generating plasma through electric discharge in the exhaust gas is provided upstream of the particulate filter, the plasma generator being actuated in an operating status with lower exhaust temperature.

Please replace paragraph [0030] at page 12 with the following rewritten paragraph:

[0030]

When the NO_x reduction catalyst is a selective reduction catalyst, NO which occupies the majority of NO_x in the exhaust gas is changed by electric discharge by the plasma generator into highly reactive NO_2 which flows to the selective reduction catalyst. Thus, when an addition device is arranged upstream of the selective reduction catalyst to add a

reducer such as urea into the exhaust gas, NO_2 is effectively reduced into N_2 through selective reduction catalyst; as a result, obtained is NO_x reduction effect higher than that obtained in a case where no plasma assist is conducted.

Please replace paragraph [0031] beginning at page 12 with the following rewritten paragraph:

[0031]

~~On an occasion of~~ In practicing the invention more concretely, it is preferable to provide a temperature sensor for detecting the exhaust temperature and a controller for actuating the plasma generator on the basis of the detection signal from the temperature sensor when the exhaust temperature detected is below a predetermined value; the controller may be constructed such that it may optimize generated plasma amount depending upon the exhaust temperature upon actuation of the plasma generator.

Please replace paragraph [0035] at page 14 with the following rewritten paragraph:

[0035]

(III) Merely conducted is controlling the fuel injection unit so as to cause it to conduct post-injection following the main injection and with non-ignition timing later than a compressive top dead center, which make it possible to add unburned fuel to the exhaust gas with no need of new facilities annexed, thereby suppressing a runup of cost on fuel adding means.

Please replace paragraph [0040] at page 15 with the following rewritten paragraph:

[0040]

(VIII) According to a further aspect of the invention, a particulate filter is ~~surely~~ reliably regenerated even in an operating status with lower exhaust temperature and good NO_x reduction effect is obtained by the NO_x reduction catalyst; moreover, any and all undue wasteful plasma generation is averted to substantially suppress electricity consumption.

Please replace paragraph [0044] beginning at page 16 with the following rewritten paragraph:

[0044]

As shown in Fig. 2 [[in]] on an enlarged scale, the particulate filter 10 is a porous honeycomb structure made of ceramics having lattice-like compartmentalized passages 10a; alternate ones of the passages 10a have plugged inlets and the remaining passages 10a with unplugged open inlets are plugged at their outlets. Thus, only the exhaust gas 8 passing through the porous compartment walls 10b is discharged downstream.

Please replace paragraph [0045] at page 17 with the following rewritten paragraph:

[0045]

Arranged upstream of the particulate filter 10 is a plasma generator 11 which discharges electricity in the exhaust gas 8 to generate plasma~~; arranged~~. Arranged upstream of the plasma generator 11 is flow-through type oxidation catalyst 12 with a honeycomb structure shown in an enlarged scale in Fig. 3.

Please replace paragraph [0047] beginning at page 17 with the following rewritten paragraph:

[0047]

Each of the electrodes 13 and 14 is connected through an electric discharge controller 15 to a power supply 16; particularly in the present embodiment, the power supply 16 is assumed to be an in-vehicle cell, so that the voltage of the power supply 16 is enhanced by the discharge controller 15 to a voltage capable of discharging electricity and is supplied across the respective electrodes 13 and 14[[; the]]. The discharge controller 15 is controlled by a command signal 15a from a controller 17 which is an engine control computer or electronic control unit (ECU).

Please replace paragraph [0054] beginning at page 20 with the following rewritten paragraph:

[0054]

More specifically, in the example illustrated, an action is ~~commanded~~ generated by the opening degree command signal 22a from the controller 17 to the suction throttling valve 22 (suction throttling means) incorporated in the suction valve 5, which action is different from an inherent action for the suction throttling valve 22 and is for utilization of the valve as temperature increasing means for increasing the exhaust temperature. When the throttling of the suction flow rate is conducted by the suction throttling valve 22 in the driving state with lower exhaust temperature, the working air quantity in the diesel engine 1 is reduced to increase pumping loss, whereby the exhaust temperature is increased by increasing the injected fuel amount so as to generate any required output. Reduction in generated exhaust gas 8 amount by the combustion in the diesel engine 1 and resultant lowering of the heat capacity contribute to further increase in the exhaust temperature.

Please replace paragraph [0055] at page 21 with the following rewritten paragraph:

[0055]

Alternatively, the controller 17, which serves also as fuel injection control means, may be utilized as the temperature increasing means for increasing the exhaust temperature. More specifically, the fuel injection unit 21 is caused to conduct the main injection with the timing delayed in a combustible range by the controller 17 to the normal injection; alternatively, the fuel injection unit 21 is caused to conduct [[a]] post-injection with the combustible timing just after the main injection.

Please replace paragraph [0061] at page 24 with the following rewritten paragraph:

[0061]

Even if the operation is conducted in an operating region with too ~~lower~~ low an exhaust temperature to oxidize the added fuel on the oxidation catalyst 12, by the controller 17 which receives the detection signal 18a from the temperature sensor 18, the temperature increasing mode is conducted before the electrode regeneration mode, so that the suction throttling valve 22 is throttled to increase the temperature of the exhaust gas 8 passing to the oxidation catalyst 12~~; alternatively~~. Alternatively, the main injection may be delayed within a combustible range to the ordinary injection or post-injection may be conducted with a combustible timing just after the main injection of the fuel.

Please replace paragraph [0062] beginning at page 24 with the following rewritten paragraph:

[0062]

When the detected value of the temperature sensor 18 exceeds the predetermined threshold and changeover is effected to the electrode regeneration mode, the added fuel can be surely oxidized on the oxidation catalyst 12[[; the]]. The exhaust gas 8 substantially increased in temperature by the reaction heat burns off the soot and SOF attached to and accumulated on the electrodes 13 and 14 of the plasma generator 11.

Please replace paragraph [0063] at page 25 with the following rewritten paragraph:

[0063]

As to whether soot and SOF attached to the electrodes 13 and 14 of the plasma generator 11 ~~require~~ are required to be removed or not, for example, voltage and/or current upon plasma generation by the plasma generator 11 may be always monitored by the controller 17 as the judging means to determine whether the leakage is generated or not~~; alternatively~~. Alternatively, post-injection may be conducted regularly on the basis of for example operating time.

Please replace paragraph [0064] beginning at page 25 with the following rewritten paragraph:

[0064]

Thus, according to the above-mentioned embodiment, the exhaust temperature may be increased by the temperature increasing means such as a suction throttling valve 22 as needs demand[[;]] and fuel is added to the exhaust gas 8 by post-injection. The added fuel is oxidized on the oxidation catalyst 12 so that the resultant reaction heat substantially increases

the temperature of the exhaust gas 8 passing through the oxidation catalyst 12. The exhaust gas 8 is introduced into the plasma generator 11 to burn off the soot and SOF attached to and accumulated on the electrodes 13 and 14, so that preliminarily prevented is leakage of current due to the soot and SOF attached and accumulated, whereby proper voltage is applied with no hindrance across the electrodes 13 and 14 to maintain well generation of plasma.

Please replace paragraph [0065] at page 26 with the following rewritten paragraph:

[0065]

Figs. 4-7 show a further embodiment of the invention wherein a catalyst regenerative particulate filter 10 is incorporated as post-processing device into an exhaust pipe 9. Arranged downstream of the particulate filter 10 is flow-through type NO_x-occlusion reduction catalyst 23 as NO_x reduction catalyst for reductive purification of NO_x in the exhaust gas 8 (for example, alumina catalyst carrying platinum and barium or alumina catalyst carrying iridium, platinum and barium is known as this kind of NO_x-occlusion reduction catalyst 23)~~; arranged~~. Arranged upstream of the particulate filter 10 is a plasma generator 11 similar to that shown in the embodiment of Figs. 1 to 3.

Please replace paragraph [0066] beginning at page 26 with the following rewritten paragraph:

[0066]

More specifically, the plasma generator 11 is actuated by the electric discharge controller 15 which receives the command signal 15a from the controller 17. Inputted into the controller 17 is the detection signal 18a from the temperature sensor 18 which detects the exhaust temperature at an entry side of the plasma generator 11[[; the]]. The plasma

generator 11 is actuated on the basis of the detection signal 18a when the exhaust temperature is below the predetermined value.

Please replace paragraph [0067] at page 27 with the following rewritten paragraph:

[0067]

However, actuation of the plasma generator 11 with the exhaust temperature being below the predetermined value is not necessarily requisite[[; for]]. For example, pressure loss of the particulate filter 10 is detected by a pressure sensor to determine a particulate accumulated amount and, only on an occasion that the accumulated amount is judged to be much, the plasma generator 11 may be activated with the exhaust temperature below the predetermined value. The accumulated particulate amount may be momentarily determined by calculation from generated and dealt amounts assumed on the basis of the operating status, or may be judged on the basis of the operating time.

Please replace paragraph [0072] at page 29 with the following rewritten paragraph:

[0072]

More specifically, electric discharge by the plasma generator 11 changes NO, which occupies the majority of NO_x in the exhaust gas 8, into highly reactive NO_2 which flows to the NO_x-occlusion reduction catalyst 23, so that NO_2 is efficiently occluded in the form of nitrite[[; as]]. As a result, occlusion reaction of NO_x on the NO_x-occlusion reduction catalyst 23 is remarkably accelerated, whereby obtained is NO_x reduction effect higher than that in a case where no plasma assist is effected.

Please replace paragraph [0077] at page 31 with the following rewritten paragraph:

[0077]

The plasma generator 11 is actuated only in the operating status with lower exhaust temperature~~; moreover~~. Moreover, at such actuation, the generated plasma amount is optimized depending upon exhaust temperature. As a result, any and all superfluous and unduly plasma generation is averted to substantially suppress the electricity consumption.

Please replace paragraph [0078] beginning at page 31 with the following rewritten paragraph:

[0078]

In the above-mentioned embodiment with respect to Figs. 4-7, NO_x-occlusion reduction catalyst 23 has been adopted as the NO_x reduction catalyst. In lieu of this NO_x-occlusion reduction catalyst 23, selective reduction catalyst with elevated response selectivity between urea and NO_x may be employed; then, electric discharge by the plasma generator 11 causes NO occupying the majority of NO_x in the exhaust gas 8 to be changed into highly reactive NO_2 which flows to the selective reduction catalyst. Thus, the addition of urea into the exhaust gas 8 by for example an urea adding device (not shown) arranged upstream of the selective reduction catalyst causes NO_2 to be effectively reduced into N_2 with the urea being utilized as reducing agent, so that obtained is NO_x reduction effect higher than that in a case where no plasma assist is conducted.

Please replace paragraph [0082] beginning at page 34 with the following rewritten paragraph:

[0082]

~~[Fig. 1] Schematic~~ Fig. 1 is a schematic view showing an embodiment of the invention;

~~[Fig. 2] Sectional~~ Fig. 2 is a sectional view showing particulars of a particulate filter in Fig. 1;

~~[Fig. 3] Perspective~~ Fig. 3 is a perspective view partly cut out showing particulars of oxidation catalyst in Fig. 1;

~~[Fig. 4] Schematic~~ Fig. 4 is a schematic view showing a further embodiment of the invention;

~~[Fig. 5] Graph~~ Fig. 5 is a graph showing a relationship between exhaust temperature and generated plasma amount.

~~[Fig. 6] Graph~~ Fig. 6 is a graph showing a relationship between exhaust temperature and combustion rate of captured particulates.

~~[Fig. 7] Graph~~ Fig. 7 is a graph showing a relationship between exhaust temperature and NO_x reduction ratio with NO_x-occlusion reduction catalyst.

~~[Fig. 8] Graph~~ Fig. 8 is a graph showing a relationship between exhaust temperature and NO_x reduction ratio with selective reduction catalyst.

Please delete the heading at line 2 on page 35.

Please delete paragraph [0083] on page 35.

Please delete the Abstract at page 46 in its entirety and insert therefore the following replacement Abstract on a separate page as follows: